W. M. BAKER.

Refrigerator.

No. 40,976. Patented Dec. 15, 1863.

Fig. 2.

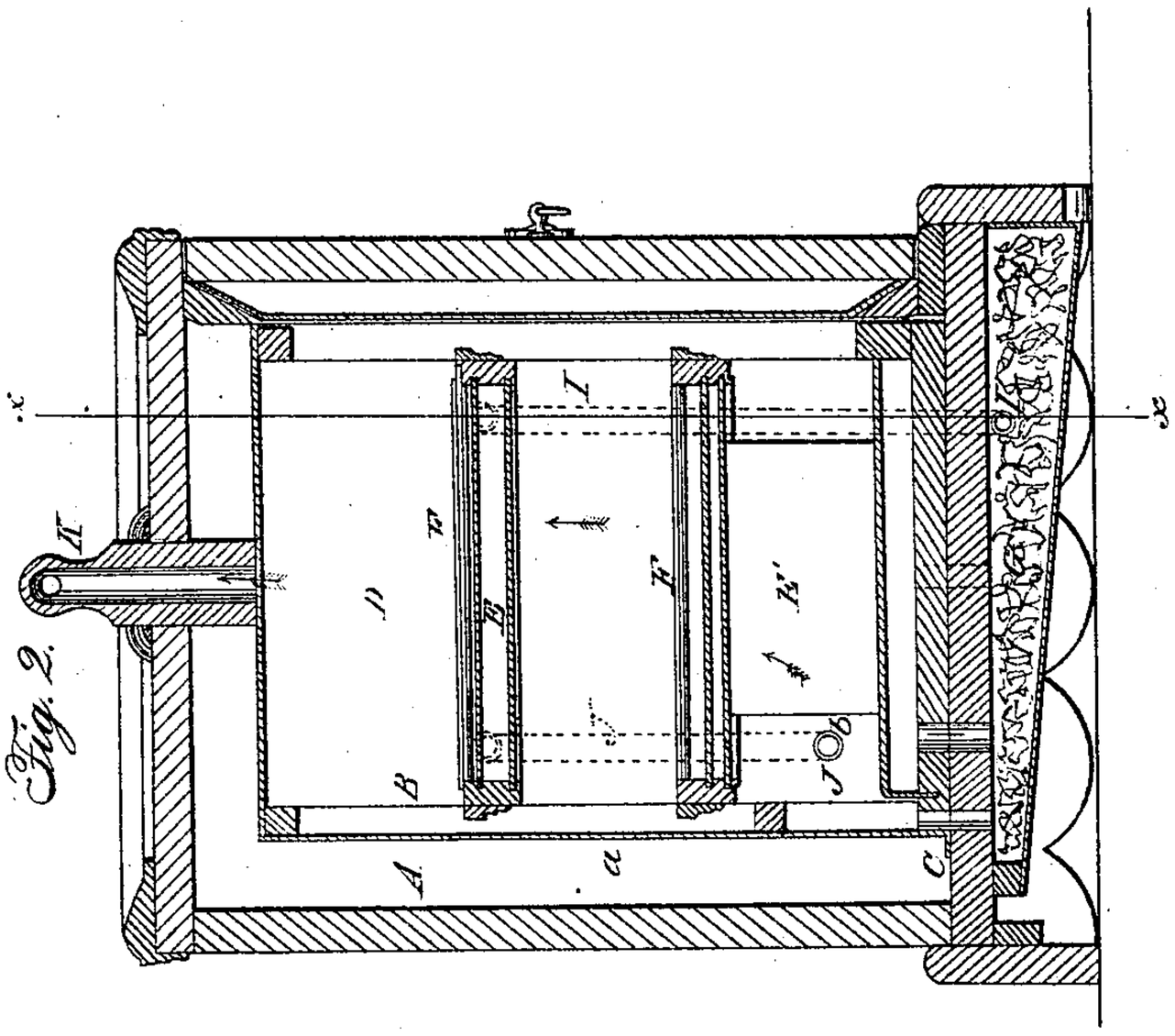
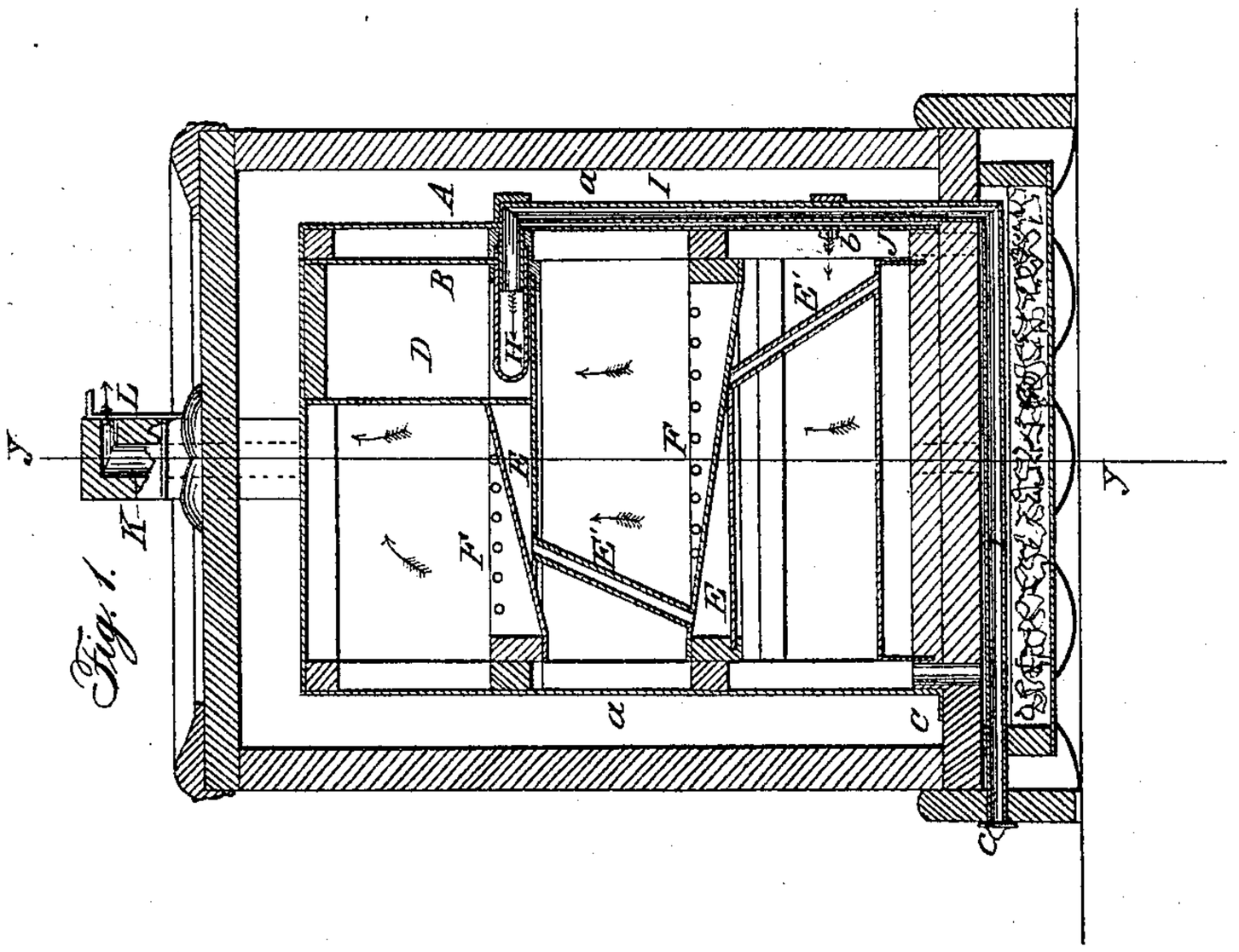


Fig. 1.



Witnesses:

Thos. J. Douglas

Geo. W. Reed

Inventor:

Wm. Baker

per Munn & Co

attorneys

UNITED STATES PATENT OFFICE.

W. M. BAKER, OF WALPOLE, INDIANA, ASSIGNOR TO HIMSELF AND W. R. HEATH, OF SAME PLACE.

IMPROVED REFRIGERATOR.

Specification forming part of Letters Patent No. **40,976**, dated December 15, 1863.

To all whom it may concern:

Be it known that I, W. M. BAKER, of Walpole, in the county of Hancock and State of Indiana, have invented a new and useful Improvement in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a vertical section of the same, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement on a refrigerator for which Letters Patent were granted to me bearing date July 18, 1863.

The object of the invention is to supply the interior of the refrigerator with cold dry air, and to carry off from within the former all gaseous impurities, as hereinafter fully set forth.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the external case of the refrigerator, constructed of wood, and B is the internal case, constructed of metal, both cases resting upon a suitable base, C, and having the space *a* between them filled with any substance which is a good non-conductor of heat.

D is an ice-chamber placed in the upper part of the inner case, B.

E are chambers, and E′ chutes communicating with the ice-chamber.

F are gratings or shelves on which the provisions are placed, and G the filter-chamber placed within or underneath the base C. These parts are all shown and described in my patented refrigerator of July 18, 1863, and therefore do not here require a special description.

In the lower part, or underneath the ice-chamber D, there is placed a close chamber, H, the latter extending the whole length of the ice-chamber.

I is a tube which passes horizontally through the filter-chamber G, and extends upward by the side of the inner case, B, and passes into the chamber H near one end of it. Near the opposite end of the chamber H a tube, J, is inserted, and this tube J extends down by the outer side of the case B, and enters it near its lower end, as shown at *b*. The outer end of the tube J communicates with the external air, and a valve or slide, *c*, is fitted over it, as shown in Fig. 1.

The operation is as follows: The chamber H is kept cold or at a low temperature by the ice-chamber D, the drippings from the latter falling upon and circulating around the former. The warm external air rushes through the tube I and into the chamber H. This air is partially cooled in passing through the portion of the tube I which is in the filter-chamber G, as the filtering material is kept in a passably cool state by the ice-water passing through it, and said air is further cooled in passing through the chamber H. The air, it will be seen, while being thus cooled, is kept perfectly dry, as it does not come in contact with ice or any moisture whatever. The cold dry air passes from the chamber H down the tube J and into the lower part of the inner case, B, and thence passes up at the back part of B and escapes through a ventilator, K, at the top, said ventilator having a valve, L, at its upper end. The direction of the current of air is indicated by red arrows. The volume of the current of cold air may be regulated by adjusting the valves C L.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The air-tubes I J and air-chamber H, in combination with the ice-chamber D and ventilator K, all being arranged in relation with the inner case, B, to operate in the manner substantially as and for the purpose herein set forth.

W. M. BAKER.

Witnesses:
C. A. HEATH,
GEO. R. RIDDLE.